UNIVERSAL HUMAN RIGHTS: AN ANALYSIS OF STATES' OBLIGATIONS UNDER THE RIGHT TO LIFE IN OUTER SPACE

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ABSTRACT

The proliferation of government and commercial activities raises important legal questions about the duties of States to observe and protect human rights in outer space. First, do human rights obligations apply extraterritorially to outer space? Second, if the answer to the former is yes, then what are those rights and to what extent are the rights modified in their application to space? There is very little discussion and analysis of human rights obligations and their application to outer space. In this paper, I analyze the intersection of international outer space law and human rights law to conclude that human rights obligations do apply to outer space. I have restricted the analysis in this paper to the right to life in the International Covenant on Civil and Political Rights and the European Convention on Human Rights, due to limitations in considering every aspect of space/human rights law intersection. This Article is not intended to authoritatively resolve the questions in all areas, but to act as a starting point to stimulate discussion.

I. INTRODUCTION

There is currently sparse literature on the relationship between human rights law and outer space activities. Contributions

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in this area have been limited to the impact of activities in outer space on the human rights of individuals on Earth. As such, they often raise more questions than they do answers. Space law is itself an emerging area of law, and there remain many ambiguities about how the two legal frameworks interact in theory or in practice. The aim of this paper is to propose a resolution to some of the issues surrounding the application of international human rights law to space.

I have restricted my analysis to the right to life, particularly in the context of the International Covenant on Civil and Political Rights and the European Convention on Human Rights. The right to life has been used as an example of a non-derogable, fundamental, universal, inalienable human right and is considered "a necessary condition for the enjoyment of all other human rights . . . ." It is particularly interesting to consider the right to life in the context of space activities, both in outer space itself (as space is a hostile environment where humans cannot naturally survive) and on Earth (because space activities can have a significant impact on the life and health of people on Earth).

Two questions prompted this Article. First, do human rights obligations apply to outer space? Second, if the answer to this question is yes, then what are those rights and to what extent are the rights modified in their application to space? Before large-scale commercialization of space occurs, these questions need to be resolved in order to observe and respect the rights of individuals in space.

The structure of this Article is as follows. First, I will set out the legal framework forming the background of outer space and human rights law. There are similarities with both regimes that make comparisons useful, but some distinct differences pose issues for their interaction. Second, I will consider whether States' human rights jurisdiction is applicable in space. There are useful parallels to the jurisdiction of flag States over ships and aircraft registered in that flag State. However, outer space law has some important distinctions that may be relevant to preclude the practical effect of asserting jurisdiction. I will argue human rights obligations apply

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2 See id.
extraterritorially in space due to the responsibility of States to supervise national space activities. Finally, I consider the content of the right to life and its applicability in space. This section is not intended to be an exhaustive statement of the right but seeks to highlight some of the issues in applying it to space. I will argue the exact nature and content of obligations may differ as a result of the special environment of space.

II. INTERNATIONAL LEGAL FRAMEWORK

A. Space Legal Framework

International space law is a complex combination of treaties and soft law. Neither the Treaty on Principles Governing the Activities of States in the Exploration and Use of Outer Space, including the Moon and Other Celestial Bodies (Outer Space Treaty), nor any other major space-related treaty, explicitly refers to human rights applying to outer space. This could give rise to the argument that international space law, as the applicable lex specialis, covers the field with respect to any State obligations. However, this ignores the international contexts in which space law and human rights law were negotiated, when the development of human rights regulations were at the forefront of many States’ agendas.

The provisions of the space-related instruments suggest, at the very least, they are amenable to human rights considerations; indeed, going further, they imply human rights are a fixture of space law. All existing commentary regards this as an indisputable fact of the structure of the space law framework. In addition, Article III of the Outer Space Treaty provides the following:

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6 Id. at 114.
8 Id. See also Anel Ferreira-Snyman and Gerrit Ferreira, The Application of International Human Rights Instruments in Outer Space Settlements: Today’s Science Fiction, Tomorrow’s Reality 22 POTCHEFSTROOM ELECTRONIC L.J. 1, 4-5 (2019); Freeland & Jakhu, supra note 1, at 229.
State Parties to the Treaty shall carry on activities in the exploration and use of outer space, including the Moon and other celestial bodies, in accordance with international law, including the Charter of the United Nations, in the interest of maintaining international peace and security and promoting international co-operation and understanding.9

Similar text is found in Article II of the Agreement Governing the Activities of States on the Moon and other Celestial Bodies (Moon Agreement).10 Human rights law does attach to activities in space, to the extent it is reflected in international law. Recall the United Nations (UN) Charter’s preamble declares its purpose
to reaffirm faith in fundamental human rights, in the dignity and worth of the human person, in the equal rights of men and women and of nations large and small . . . .11

And one of the purposes of the UN is to
achieve international co-operation...in promoting and encouraging respect for human rights and for fundamental freedoms for all . . . .12

The Outer Space Treaty was never meant to be a comprehensive framework for all future space activities.13 Representatives of States who co-sponsored the UN General Assembly resolution to adopt the text of the Outer Space Treaty commented that the Treaty was “only the first chapter”14 and intentionally took a “broad approach” to outer space law.15 Indeed, Article III itself envisages situations where space law does not have a unique application and refers to other sources of international law to resolve the gap.16

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9 Outer Space Treaty, supra note 4, art. III.
10 Agreement Governing the Activities of States on the Moon and Other Celestial Bodies art. 2, Dec. 18, 1979, 1363 U.N.T.S. 3 (1979) [hereinafter Moon Agreement].
11 U.N. Charter Preamble.
12 U.N. Charter art. 1, ¶ 3.
13 Freeland & Jaku, supra note 1, at 228.
15 Id. at 11.
16 Outer Space Treaty, supra note 4, art. III.
B. International Human Rights Framework

The international human rights legal framework is similarly a mix of hard and soft law. Similar language is used to describe the aims and purposes of both regimes. As I am focusing on the right to life, I shall primarily consider the International Covenant on Civil and Political Rights (ICCPR) and regional human rights treaties, particularly the European Convention on Human Rights (ECHR).

The Universal Declaration of Human Rights (UDHR) proclaims,

Whereas recognition of the inherent dignity and of the equal and inalienable rights of all members of the human family is the foundation of freedom, justice and peace in the world.

The preamble of the Outer Space Treaty similarly makes reference to principles of "the common interest of all [hu]mankind" and indicates that the exploration and use of outer space be "carried on for the benefit of all peoples." The ICCPR refers to the "equal and inalienable rights" of all humans and recognizes the "ideal of free human beings . . . can only be achieved if conditions are created whereby everyone may enjoy . . ." their rights.

The motivations behind the international human rights system is to promote international cooperation among States to further the ideal of a common humanity, where all individuals enjoy rights arising from their inherent dignity as human persons. The same is true for space law, as it was instituted to recognize the common interest of all humanity in sharing the benefits of space exploration and activities. Indeed, in the discussion of the Outer Space Treaty, one representative noted:

For the first time in the history of [hu]mankind, all countries, and in the first instance the two world Powers of the day, are not searching for new territorial conquests or for the expansion

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20 Outer Space Treaty, supra note 4, Preamble.
21 ICCPR, supra note 17, Preamble.
of their sovereign rights. On the contrary... peace and... the unity of all [individuals]... are solemnly affirmed.22

These sentiments are clearly aspirational. However, the normative force of soft law cannot be ignored.

III. Universal Rights, Jurisdiction and Control

A. Human Rights Jurisdiction

To what extent are human rights universal? More specifically, does the right to life apply extraterritorially to impose obligations on States in their activities in outer space? The idea of universal human rights in the UDHR requires that human rights apply equally to all individuals regardless of geographic location.23 Later human rights treaties refine this idea. In the ICCPR, States undertake “to respect and to ensure to all individuals within [their] territory and subject to [their] jurisdiction the rights recognized in the present Covenant...”24 The ECHR has a similar formulation.25 In each case, the operational words are “territory” and “jurisdiction,” meaning States are only bound to respect human rights within their jurisdiction.

The meaning of “jurisdiction” is contested.26 There are two primary interpretations: a jurisdictional model based strictly on national territory and one based on effective control.27 In space, jurisdiction cannot be determined by a territorial sovereignty model of jurisdiction because the Outer Space Treaty explicitly prohibits national appropriation by claims to sovereignty.28 States cannot own

22 U.N. GAOR, supra note 14, at 12.
24 ICCPR, supra note 17, art. 2(1).
25 The ECHR provides that “The High Contracting Parties shall secure to everyone within their jurisdiction the rights and freedoms defined in Section I of this Convention.” ECHR, supra note 18, art 1.
27 Id. at 658.
28 Outer Space Treaty, supra note 4, art. II.
territory in space. This raises issues as the ICCPR clearly refers to “territory” as the source of jurisdiction.

Is a Moon base, for example, a territory within a State’s jurisdiction? What happens if a State deprives someone of their rights in a space station owned by another State? United States (US) practice seems to deny territorial jurisdiction over Central Intelligence Agency “black sites” located outside US territory. In fact, the US Office of Legal Counsel advised that the US’s obligations did not apply to “black sites” because the US is not the de facto authority as the government in those jurisdictions. The ICCPR’s travaux show the US representative, Eleanor Roosevelt, opined that the ICCPR did not impose any obligations to individuals outside a State’s territory. Likewise, early decisions of the European Court of Human Rights (ECtHR) have reinforced the idea that territory is the basis for human rights jurisdiction under the ECHR.

However, there are contrary views and case law. In General Comment 31, the UN Human Rights Committee noted the ICCPR applied to individuals “within the power or effective control of that State Party, even if not situated within the territory of that State

29 “Black sites” are secret detention facilities set up by the CIA in various countries to hold and interrogate people suspected of being terrorists. The advantage of "black sites" to the CIA is that suspected terrorists can be detained and interrogated in conditions that would likely be illegal if they were so detained or interrogated within U.S. territory. See Al Nashiri v. Poland, Eur. Ct. H. R., at ¶ 227 (2014), http://hudoc.echr.coe.int/eng?i=001-146044; Husayn (Abu Zubaydah) v. Poland, Eur. Ct. H. R., at ¶ 227 (2014), http://hudoc.echr.coe.int/fre?i=001-146047. In both cases, Poland was found to have violated various Articles of the ECHR due to their complicity by allowing the applicants’ detention and interrogation at “black sites” maintained by the CIA on Polish territory. As the U.S. is not a signatory to the ECHR, the United States’ own obligations were not discussed.


This is also supported by later decisions of the ECtHR. Effective control at a minimum requires a State’s agents or servants to be present and some kind of exercise of public power or administration. The existence of effective control is enough for the application of human rights obligations to the occupying State, as they have assumed de facto responsibility for the administration of that territory. Consequently, the extent to which human rights obligations are applicable in space must depend on the effective control of the State.

There is also a notion of personal, as opposed to territorial, jurisdiction. Here, jurisdiction arises from the authority and control a State has over individuals, even if those individuals are outside the territory of the State. It is an expansive view of jurisdiction and has been viewed cautiously by human rights jurisprudence. In *Lopez Burgos v. Uruguay*, the UN Human Rights Committee held “individuals subject to its jurisdiction” in art 2(1) of the ICCPR can be interpreted to mean “the relationship between the individual and the State in relation to a [rights] violation . . . wherever they occurred”—in other words, interpreting Article 2(1) as disjunctive rather than conjunctive. Thus, an individual who was kidnapped in Argentina by Uruguayan officials was found to be within Uruguay’s jurisdiction.

**B. Ships and Aircraft**

The test of effective control as requiring exercise of public power is not useful in outer space. Short of founding a colony, it is unlikely States will be exercising sufficient administrative power in the near or even medium term. The ECtHR’s decisions with regards

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34 Milanovic, *supra* note 32, at 419. For example, in Öcalan v. Turkey, 2005-IV Eur. Ct. H.R., the Court held that the applicant was within Turkey’s jurisdiction as soon as Kenyan officials had delivered the applicant to the custody of Turkish officials at Nairobi Airport, notwithstanding the fact that the airport was not in Turkish territory. *See id.* ¶ 91.


to ships and airplanes, on the other hand, offers a useful comparator. In *Bankovic v. Belgium*, the Court said, in obiter dicta, the special nature of ships and aircraft under international law ensured that extraterritorial exercise of jurisdiction is exercised by the State in which the craft is registered. 37 However, Milanovic argues this conflates the conceptual distinction between prescriptive jurisdiction and effective control jurisdiction. 38 The former refers to the authority to prescribe laws applying to the territory, while the latter refers to the State’s actual control over the territory.

In *Medvedyev v. France*, the applicants were crew members on a Cambodian-flagged ship suspected of drug-trafficking. 39 France obtained permission from Cambodia to search and seize the ship, detained the crew and brought the ship to a French port to be tried. The applicants complained that their detention for the duration of the voyage to the port was unlawful. Although the Court reiterated its dicta in *Bankovic*, it held France exercised “full and exclusive control” over the ship, and the crew thus fell within France’s jurisdiction for the purposes of the ECHR. 40

Consequently, there is a distinction between the prescriptive jurisdiction of a vessel’s flag State and effective control for the purposes of human rights jurisdiction. If a violation occurs in a State-registered vessel within its territorial waters, there is a clear nexus. However, if the violation occurs in a State-registered vessel on the high seas, the fact that the vessel is registered in a State is not determinative of whether it has any human rights obligations. It is the presence of authority and control that is needed to give rise to the State’s jurisdiction.

**C. Application in Space**

It is important to note State jurisdiction over activities in space differ from jurisdiction in respect of air law and the law of the sea in key aspects. The Outer Space Treaty specifies that a State on whose registry a space object is registered retains “jurisdiction and control” over the object and any personnel onboard. 41 The Outer

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40 Id. ¶ 67.
41 Outer Space Treaty, *supra* note 4, art. VIII.
Space Treaty also specifies that States have “international responsibility” for national activities in outer space; requires “authorization and continuing supervision” of non-governmental activities; and ensures States are “internationally liable” for damage caused by its space objects.\(^{42}\) The Moon Agreement contains similar provisions.\(^{43}\)

The Convention on the Registration of Objects Launched into Outer Space (Registration Convention) elaborates on the definition of a launching State and a State of registry but does not expand on “jurisdiction and control” beyond specifying that when there are multiple launching States, they may jointly determine which one has jurisdiction and control.\(^{44}\) The Convention on International Liability for Damage Caused by Space Objects (Liability Convention), although not expressly dealing with human rights, assigns liability to the launching State for any damage caused by its space objects.\(^{45}\)

The launching State or State of registry is analogous to the flag State of a vessel. The question is whether “jurisdiction and control” means something more than the prescriptive jurisdiction of the flag State. Prescriptive jurisdiction clearly applies to space objects, as national laws of the State apply to its space objects. However, this is only the starting point of an analysis. The test is whether the State has any actual or effective control over the object and its personnel.

The travaux of the Outer Space Treaty have some useful explanations that elaborate on the relationship between jurisdiction and control in space and on Earth. The Argentinian representative, when discussing this provision in the Legal Subcommittee of the UN Committee on the Peaceful Uses of Outer Space (COPUOS), explained that jurisdiction and control flow from the principle that “provisions of international law, and above all the UN Charter, should govern the relations among States in outer space and on celestial bodies.”\(^{46}\) The Mongolian representative was of the opinion

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\(^{42}\) Id. at arts. VI, VII.

\(^{43}\) Moon Agreement, supra note 10, art. 12.


the terms included at least the ability to control access by other States' representatives. In this sense, the meaning of jurisdiction is closely associated with its meaning on Earth.

Similarly, the travaux of the Declaration of Legal Principles Governing the Activities of States in the Exploration and Uses of Outer Space, which formed the basis of the Outer Space Treaty, are also useful. The Soviet representative preferred to speak of the "rights" of States over objects rather than "jurisdiction," which implies a prescriptive jurisdiction to assert laws. The Italian representative explained that "jurisdiction" is "more immediately related to the concept of the flag flown by such vehicles than to the concept of ownership," suggesting a direct comparison to flag States of ships and aircraft. The representative of the United Kingdom explained the need to consider that liability for incidents involving space vehicles should rest on the State which had "jurisdiction, in the sense of effective control." Consequently, there are strong arguments that States view jurisdiction in space as having a similar meaning to effective control and jurisdiction of flag States on Earth.

The Human Rights Committee in Lopez Burgos relied on the idea of universality of human rights and held that it would be "unconscionable" to permit one State to commit human rights violations outside of its territory when it could not do so on its own territory. This concept has been cited with approval by subsequent cases and the ECtHR. The argument is based on the philosophical ideals of the universality of human rights. It follows that there is no reason to restrict its application only to Earth, as human rights arise everywhere humans are, including in space.

52 For example, the case of Issa v. Turkey, Eur. Ct. H.R. (2004), http://hudoc.echr.coe.int/eng?i=001-67460, the Court held that "Article 1 of the [ECHR] cannot be interpreted so as to allow a State party to perpetrate violations of the [ECHR] on the territory of another State, which it could not perpetrate on its own territory." Id. ¶ 71.
Consider hypothetical States A and B and a potential violation during a government space activity. There are three possible scenarios of jurisdiction:

1. The violation occurs on a space object registered by State A and staffed by agents of State A;

2. The violation occurs on a space object registered by State B, but the only personnel present are agents of State A;

3. The violation occurs on a celestial body or territory not subject to any State's jurisdiction and the violation is done by State A's agents.

Scenario 1 is the simplest, as it occurs exclusively within State A's jurisdiction and control—not only is A the State of registry, but the object remains entirely under A's control, either through its agents or through control via a ground station.

Scenarios 2 and 3 have many parallels to the cases regarding flag States of ships and aircraft. While the State of registry or launching State may be a starting point, the proper test is which State had effective control over the impugned activities. In scenario 2, State B is not liable for A's violations simply because it occurred on an object on B's registry.

It would be difficult to argue a State had actual control over an uncrewed space object that they lost contact with for technical reasons. This could be resolved by interpreting "jurisdiction and control" as including the right of the State to assert control. An exercise of legal power asserting a State's legal rights over an object is likely sufficient to attract human rights jurisdiction. The distinction between effective control as physical control compared to the right of a State to assert control could be useful in these scenarios.

D. Non-government Space Activities

On Earth, it is unclear whether States can be held responsible for human rights violations of private persons or corporations within their jurisdiction.\textsuperscript{53} Does a State's duties impose the positive obligation to take all reasonable measures to prevent private

entities from violating human rights? Broadly speaking, the answer would lie in the degree of effective control the State has over the private entity.\textsuperscript{54}

It is enshrined in the Outer Space Treaty that all space activities, including commercial and non-government activities, must be authorized and be under the continual supervision of a State.\textsuperscript{55} The importance of supervision is reinforced in UN General Assembly resolutions adopted well after the ratification of the Outer Space Treaty. Resolution 59/115 of December 10, 2004, recommends that States, in fulfilling their obligations under the various space treaties, consider “implementing national laws authorizing and providing for continuing supervision of the activities in outer space of non-governmental entities under their jurisdiction.”\textsuperscript{56} Resolution 68/74 of December 11, 2013, recommends that States should include several elements in their national regulations, including

\begin{itemize}
  \item The conditions for authorization should be consistent with the international obligations of States [potentially including treaty obligations regarding human rights], in particular under the United Nations treaties on outer space, and with other relevant instruments, and may reflect the national security and foreign policy interests of States; the conditions for authorization should help to ascertain that space activities are carried out in a safe manner and to minimize risks to persons . . . .

  \item Appropriate procedures should ensure continuing supervision and monitoring of authorized space activities by applying, for example, a system of on-site inspections or a more general reporting requirement; enforcement mechanisms could include administrative measures, such as the suspension or revocation of the authorization, and/or penalties, as appropriate.\textsuperscript{57}
\end{itemize}

Since continuing supervision is an obligation under space law, States are in a position in which they must exercise a higher degree

\textsuperscript{55} Outer Space Treaty, supra note 4, art. VI.
\textsuperscript{57} G.A. Res. 68/74, Recommendations on National Legislation Relevant to the Peaceful Exploration and Use of Outer Space, ¶¶ 4-5 (Dec. 11, 2013).
of control over non-governmental and commercial activities in space than they do on Earth. At a minimum, States have a legal basis upon which to assert a right to control non-governmental activities more stringently than they do on Earth.

States are given a lot of discretion when it comes to implementing domestic regulations governing space activities. Not all States have implemented such domestic regulations, and those that have provide varying levels of supervision.\textsuperscript{58} Australia has one of the most detailed schemes, which includes: the requirement that the proposed activity poses minimal risk to public health or safety; government approval of design and engineering plans for spacecraft; and financial and technical fitness tests.\textsuperscript{59} Argentina imposes a minimalist scheme, requiring only disclosure and notification to the government of planned space activities, with no authorization, safety measures or continuing supervision.\textsuperscript{60} However, even given the differing levels of regulation, the fact that States have a right under international law to assert supervision over non-government space activities is likely sufficient for human rights jurisdiction.

IV. THE RIGHT TO LIFE IN SPACE

The right to life is protected by various international and regional treaties. Analysis in this paper will be restricted to the ICCPR and ECHR. Article 6 of the ICCPR provides:

\begin{quote}
Every human being has the inherent right to life. This right shall be protected by law. No one shall be arbitrarily deprived of his life.\textsuperscript{61}
\end{quote}

The ICCPR also contains provisions regarding the death penalty. Article 2 of the ECHR provides:

\begin{quote}
\end{quote}


\textsuperscript{59} See \textit{Space Activities Amendment (Launches and Returns) Act 2018} (Cth) (Austl.).

\textsuperscript{60} Julian Hermida, \textit{Regulation of Space Activities in Argentina, in NATIONAL REGULATION OF SPACE ACTIVITIES} 23, 27 (Ram S. Jakhu ed., 2010).

\textsuperscript{61} ICCPR, \textit{supra} note 17, art. 6 ¶ 1.
Everyone's right to life shall be protected by law and no one shall be deprived of his life intentionally.... 62

The ECHR details circumstances in which the deprivation of life will not be regarded as a violation, which relate to the use of force when absolutely necessary for a designated purpose. 63 The right to life is generally regarded to have three main components. 64 These are the duty to: 1) refrain from arbitrary or intentional deprivation of life; 65 2) investigate suspicious deaths; 66 and 3) take reasonable steps to protect life from avoidable loss. 67 The analysis in this paper will focus on these three aspects of the right to life, recognizing that these categories are artificial and may not be a complete representation of the content of the right. However, they are useful categories to begin analyzing human rights issues in outer space.

In applying the right to outer space, the unique environment of space must be considered. Space is inherently a hostile and lethal environment for humans—to survive in space, humans need to either bring the essential components for life (such as oxygen, food and water) with them, or develop the technology to synthesize these essential components in outer space itself. While the special nature of the space environment cannot provide for outright exceptions to the human rights framework, the factual circumstances may result in different factors being accorded weight when applying the right to life to space.

A. Negative Obligation Against Deprivation of Life

On Earth, with few exceptions, States cannot intentionally or arbitrarily deprive anyone of life. There is no reason why this cannot be applied directly to outer space. States should be prohibited

63 Id. at art. 2(2).
from killing individuals arbitrarily in outer space. The special nature of space does not provide for any conceivable exceptions.

The primary way this category has been engaged is the use of lethal force by law enforcement. The principle that space be used for exclusively peaceful purposes may prevent abuses of the right to life caused on Earth as a result of military activities, but still leaves room for the use of force by law enforcement. As conventional weapons are not explicitly banned in space, there is still the possibility lethal force could be used. Given the harsh environment of space, there is a higher risk that use of force would result in death, due to the potential for otherwise small or minor accidents to snowball into life-threatening catastrophes as well as the lack of access to comprehensive medical assistance in the event of an injury.68

States are required to take all necessary measures to prevent arbitrary deprivations of life by their officials, which can include providing adequate training and guidelines to armed officials.69 In space, the control a State has over its officials may be weaker than on Earth, and such officials may enjoy a greater autonomy. However, the ECtHR has held that even in fluid situations (such as chaotic police chases), proper administrative and legal frameworks on the use of force should avoid some risks.70 Thus, States are obliged to ensure their officials are adequately trained, including on the specific risks of using lethal force in space.

Finally, the Human Rights Committee considers the threat or use of weapons of mass destruction as incompatible with respect for the right to life.71 As space law prohibits the placement of nuclear and other weapons of mass destruction in space, this is an area of confluence for the two frameworks.72 However, there remains the possibility of the placement and use of conventional weapons in space; conventional weapons are not expressly prohibited in the same way as are weapons of mass destruction.

68 For example, the Columbia disaster was apparently caused by a piece of insulation foam puncturing the shuttle wing. See Harold W. Gehman Jr. et al., Report of the Columbia Accident Investigation Board 9 (2003).
71 General Comment No. 36, supra note 64, ¶ 66.
72 Moon Agreement, supra note 10, art. 3; Outer Space Treaty, supra note 4, art. IV.
B. Positive Obligation to Investigate

The right to life extends to the duty of States to investigate suspicious deaths, particularly those arising from the actions of States against individuals. The investigation must be effective and capable of ensuring accountability for deaths occurring under the State’s responsibility.\(^{73}\) In the event of a violation, full reparation must be provided, including adequate compensation.\(^{74}\) States must have adequate provisions in their legal systems for making investigations into incidents that cause death, even if the death is caused by accident or by non-government entities.\(^{75}\)

There are some practical difficulties in applying this concept to space. States are required to authorize and continually supervise national activities in space, meaning a duty to investigate thoroughly could occur in every instance of a life-threatening incident in space. This could be a prohibitive cost for many poorer States. In space, accidents can be catastrophic, and full investigations are often beneficial in order to prevent future accidents. However, data may be sparse or difficult to acquire, and investigators may not possess the technical capability to adequately investigate a space incident. Criminal investigations are often an important component of the duty to punish and deter wrongdoers, which raises questions of jurisdiction and State immunity.\(^{76}\)

The Liability Convention stipulates that the launching State is “absolutely liable” for damage caused by its space objects on Earth and liable under a fault-based scheme if damage occurs in space, even if such damage is caused by non-government space activities.\(^{77}\) Although it does not specifically deal with human rights violations, the Liability Convention considers loss of life in the


\(^{74}\) General Comment 36, supra note 64, ¶ 28.

\(^{75}\) For example, Calvelli and Ciglio v. Italy, 2002-I Eur. Ct. H.R., establishes the principle that States are obliged to have adequate legal protection for its citizens against medical negligence by both public or private hospitals and to maintain adequate independent judicial systems to investigate the cause of any patients’ death while in the care of the medical profession, whether in the public or private sector. Id. ¶ 49. Similarly, in Önerüldiz v. Turkey, 2004-XII Eur. Ct. H.R., the Court held that a State is required to make provision for adequate investigation into the context of an environmental accident. Id. ¶ 94.


\(^{77}\) Liability Convention, supra note 45, arts. II, III.
context of outer space. This incentivizes the State to ensure a proper investigation is held to find those ultimately responsible. Many States, when authorizing non-governmental space activities, will require the private entity to indemnify the State or take sufficient insurance for damage. This passes the risk from States to private entities.

However, there are limitations to any potential legal action. Compensation under the Liability Convention does not guarantee an effective investigation beyond identifying which State is liable to pay the compensation. Individuals have no rights to claim compensation themselves, as only States which have suffered damage either to themselves or their persons have the standing to make a claim. The Convention does not apply to nationals of the launching State nor foreign nationals participating in the operation of that space object. Thus, there are no duties under the Liability Convention for State nationals or participating individuals, even though they are covered by human rights obligations through the ordinary operation of human rights law if the individuals are on Earth, or the extraterritorial operation of such laws if they are in space. States complying with the Convention would need to take additional measures to provide for investigation and compensation to cover the gap and meet their obligations under the right to life as applied to the context of space.

C. Positive Obligation to Protect Life

Finally, the right to life includes a State’s duty to take all appropriate or reasonable steps to safeguard the lives of those within their jurisdiction. This extends to all threats to the right to life, including environmental threats and industrial activities, which, because of their nature, are especially dangerous. It also includes appropriate measures to prevent deprivation of life by other States within their jurisdiction or corporate entities in extraterritorial

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79 Liability Convention, *supra* note 45, art. VII.
activities, where their activities have a direct and foreseeable impact on the right to life.81

Space activities are inherently dangerous. So, what does "all appropriate measures" mean in the space context? Although States are given a wide margin of discretion as to which appropriate measures to take, legislative or administrative frameworks aimed at preventing or reducing the risk to life are often appropriate. Other relevant factors include the significant costs associated with space activity and the desire to not place disproportionate burdens on States. National regulations must be geared to the special risks and dangers associated with space activities in order to cover the inherent risks of outer space. Frameworks must be in place to deal with the potential for a large-scale disaster should a catastrophe in space occur.

Recall that in implementing their obligation to continually supervise nongovernmental space activities, some States have taken only minimal action, while others have created stringent safety requirements. The interaction of space law and human rights law duties arguably leads to a conclusion that strict State oversight over the safety of proposed space activities is necessary to comply with the duty to protect life. There is a problem of the capacity of smaller States to comprehensively oversee all their space activities, but this can be considered part of their margin of appreciation in implementing the duty. The fact that international space law gives a right of States to assert jurisdiction over their space objects may therefore give rise to a duty under international human rights law to exercise that right in order to protect the lives of individuals involved.

A situation may arise in which a State knowingly sends astronauts on a "suicide mission"—a mission in which there is a high risk or likelihood of death. For example, with current technology, a staffed mission to Mars is possible, but it is not possible to bring any personnel back from Mars.82 Any astronaut going to Mars will


82. See for example the Mars One project that was meant to send individuals on a one-way mission to Mars (to much criticism) before being liquidated in 2019. Jonathan O'Callaghan, Goodbye Mars One, The Fake Mission To Mars That Fooled The World, Forbes (Feb. 11, 2019),
inevitably die when supplies run out. Hikmah argues sending humans to Mars presently would violate their right to life.\textsuperscript{83} This thought process is consistent with the interpretation of the right to life as requiring adequate or reasonable steps to safeguard the lives of those within a States’ jurisdiction. Therefore, there is likely an obligation to avoid knowingly sending humans into space without adequate essential resources, particularly if those humans are unaware of the risk they are taking. The situation may differ if the individuals concerned are fully informed of and voluntarily assume the risk. The closest analogy is the applicability of the right to life in the ECHR to military contexts or in times of war.\textsuperscript{84}

In \textit{Smith v. Ministry of Defence} (a case before the Supreme Court of the United Kingdom (UK)), the claimant alleged that the UK Ministry of Defence had breached their obligation under Article 2 of the ECHR by failing to adequately safeguard her son’s life while the son was on military duty in Iraq.\textsuperscript{85} Following the expansion of the definition of jurisdiction as outlined previously in this Article, the Court held unanimously that the deceased soldiers were within the personal jurisdiction of the UK.\textsuperscript{86} More relevantly, Lord Hope DPSC (with whom Baroness Hale and Lord Kent JJSC agreed) held that Article 2 could apply to require States to take reasonable measures to protect the lives of their own military service personnel, although the extent to which Article 2 obligations applied were modified by the “inherently unpredictable” nature of military operations and that the same standard could not be applied to “civilians who had not undertaken the obligations and risks associated with life in the military.”\textsuperscript{87} States are therefore afforded a wide margin


\textsuperscript{84} Consider, for example, that Article 15(2) of the ECHR makes an exception for “deaths resulting from lawful acts of war.” ECHR, \textit{supra} note 18, art 15(2).

\textsuperscript{85} Smith v. Ministry of Defence [2014] AC 52 (UKSC) 103.

\textsuperscript{86} \textit{Id.} at 117.

\textsuperscript{87} \textit{Id.} at 120, 122.
of appreciation in carrying out their obligations, modified by the inherently risky nature of military operations.\textsuperscript{88}

There are limitations to this wide margin of appreciation. For example, the ECtHR has recognized that States' protection obligations may have a higher standard with respect to conscripts, as conscripts do not voluntarily assume the inherent risk of military life but are instead compelled to do so by the State. To wit, the ECtHR has found breaches of Article 2 where a State did not take adequate measures to prevent a conscript with known mental health issues from committing suicide with his own weapon while on duty,\textsuperscript{89} and where institutionalized bullying and physical/verbal hazing of conscripts led to the death of a conscript.\textsuperscript{90} The ECtHR also left open the possibility that deaths, conscript or otherwise, occurring in military training contexts could support a breach of Article 2, as the risks of training activities are more predictable than actual operations.\textsuperscript{91} Consequently, it is reasonable to conclude that although Article 2 obligations may apply to the context of space, the content of the obligations may be modified in order to take into account the inherently risky nature of space activities and the applicable \textit{lex specialis}. There are examples of how State obligations are modified to reflect the hostile environment of space. The Outer Space Treaty provides that astronauts are to be regarded as "envoys of [hu]man-kind," employing similar language to that utilized by universal human rights standards.\textsuperscript{92} Astronauts of one State are obliged to render all possible assistance to astronauts of other States.\textsuperscript{93} While the treaties do not specifically refer to the right to life, States are under a stronger obligation to take "all possible assistance" instead of "all

\textsuperscript{88} This view is supported by the International Court of Justice (ICJ) in Legality of the Threat or Use of Nuclear Weapons, Advisory Opinion, 1996 I.C.J. Rep. 226 (July 8). In that Advisory Opinion, the ICJ noted that "[i]n principle, the right not arbitrarily to be deprived of one's life applies also in hostilities. The test of what is an arbitrary deprivation of life, however, then falls to be determined by the applicable \textit{lex specialis}, namely the law applicable in armed conflict which is designed to regulate the conduct of hostilities." \textit{Id.} at 240.


\textsuperscript{92} Outer Space Treaty, supra note 4, art. V.

\textsuperscript{93} \textit{Id.}
appropriate steps” to secure the lives of astronauts within their jurisdiction and control.

The Agreement on the Rescue of Astronauts, the Return of Astronauts and the Return of Objects Launched into Outer Space (Rescue Agreement) places similar duties on States to personnel of spacecraft. In the event of an emergency landing in a territory of a State, the State must “take all possible steps to rescue them and render them all necessary assistance.” If information is received, there is a duty to share it with the launching authority, and if the accident takes place in any place not under the jurisdiction of the State, States “in a position to do so shall, if necessary extend assistance” to the rescue efforts.

These two examples do not set out the duties in terms of individual or human rights; instead, it is a duty of a State to other States. Consequently, these examples may be of limited use to individuals whose rights have been violated.

V. CONCLUSION

International human rights law is applicable to outer space, and States have an obligation to respect and protect the enjoyment of human rights in space. The nature of State jurisdiction in space is sufficient to activate human rights obligations. The special environment of space does not detract from these obligations; indeed, several space treaties have developed precise rules related to the protection of the right to life, incidentally promoting and protecting specific aspects of the right. Therefore, the intersection of these two frameworks has led to some protection for the right to life in space.

Ultimately, any lack of clarity can only be resolved by the introduction of clear legal rules, such as by the development of a widely-accepted treaty. The current international human rights framework emerged in response to the atrocities of World War II, but States have an opportunity to define the scope of human endeavors in outer space before such atrocities occur as a result of space activities. Human rights frameworks can play an important role in guiding how we use space for the benefit of all humanity.

85 Id. at arts. 3, 4.